

## REMARKS

The Applicants have carefully reviewed and considered the Examiner's Action mailed March 24, 2005. Reconsideration is respectfully requested in view of the foregoing amendments and the comments set forth below.

By this Amendment, claims 1-2, 4-7, 10-12, and 15-18 are amended to clarify that the display device is a device onto which an image is projected as described on page 6, lines 24-26 of the international application. Accordingly, claims 1-20 are pending in the present application.

Claims 11 and 12 were rejected under 35 U.S.C. §112, second paragraph as being indefinite as explained in the middle of page 2 of the Action. By the foregoing amendments "display means" is changed to device onto which an image is projected. The reference numeral (10), which designates a whiteboard, was used to modify "display means" in the originally filed claims. Thus, claims 11 and 12 have been amended to reflect the terminology used in the base claim. Accordingly, it is believed that claims 11 and 12 are fully definite under 35 U.S.C. § 112, second paragraph and withdrawal of this rejection is respectfully requested.

Claims 1, 2, 4-5, 7 10, 15 and 17-19 were rejected under 35 U.S.C § 102(b) as being unpatentable over U.S. Patent No. 5,495,269 to Elrod et al. (hereinafter referred to as "Elrod") as explained in the paragraphs spanning pages 3 - 8 of the Action. This rejection is respectfully traversed.

As explained in the Amendment filed October 8, 2004, the claimed invention overcomes the shortcomings of the prior art by providing an interactive display system comprising a device onto which an image is projected, computing means arranged to

supply image information to the device onto which an image is projected and at least one remote signaling device operable to transmit signals to a receiver portion of the device onto which an image is projected where the device is arranged to supply signals to the computing means, which stores the signals for display, and where the device is a communications hub of the display system arranged to receive control signals from a pointing device and/or a remote control device and arranged to transmit those signals to the computing means in order to control an image on the device. In addition to the device claims, Applicants claim a method of operating an interactive display system (claim 15) that positively recites the above features. That is, the display device of the claimed invention (claims 1 and 18) and the method of operating an interactive display system positively recite that the device onto which an image is projected is operable to receive control signals and then transmit those signals to a computer means in order to control an image on the device.

Elrod is directed to a large area electronic writing system which accurately captures and displays information on an interactive system so that multiple persons may work together for supplying and receiving information. As the Action correctly notes, Elrod discloses a screen 18 in Figure 1. However, elements 12 and 14 of Elrod are not part of the screen onto which an image is projected; instead, reference numeral 12 is a projection subsystem and reference numeral 14 depicts a receiving subsystem. While “one or more light pens” of Elrod “project a signal towards screen 18”, “[T]he light beam from each pen 20 is received by receiving subsystem 14 which conveys information” to computer 16 (column 3, lines 47-51 of Elrod). Thus, the screen 18 of Elrod does not receive control signals and transmit signals to a computing means in order

to control an image of the display device. Consequently, screen 18 of Elrod is not “a communications hub of the display system”, as recited in independent claims 1, 15, and 18.

To the contrary, it is clear that Elrod discloses a receiving subsystem, which is not part of the screen onto which an image is projected, that receives control signals from light pens 20; and the receiving subsystem 14 transmits those signals to a computer 16, which controls a projection subsystem 12 (column 3, lines 43-21 of Elrod). Thus, Elrod fails to disclose a device onto which an image is projected that 1) has a receiver portion that receives signals from a remote signaling device and 2) transmits those signals to the computing means in order to control an image on the device, as required by independent claims 1, 15 and 18. Accordingly, Elrod cannot anticipate claims 1, 15, and 18 and any of their depending claims. Withdrawal of the rejection under 35 U.S.C. §102 (b) is respectfully requested.

The claims have been amended to clarify that the “display device (10)” originally claimed by Applicants is a device onto which an image is projected and not a display system that has a number of different elements (one of which is the device onto which an image is projected). It is the Examiner’s position that the recitation of the element “display device” can be more than a display screen or whiteboard as defined in Applicants’ specification. The Federal Circuit recently held in *Phillips v. AHW Corp.*, 75 USPQ2d1321 (2005) that the proper scope of the claims is determined by the specification, including the claims, as understood of one of ordinary skill in the art. It is respectfully submitted that one of ordinary skill in the art reading the present specification would have understood that the recitation of “display device (10)” in the

originally-filed claims and the description of a whiteboard 10 on pages 6-11 of the international application clearly refers to a device onto which an image is projected and not to a system (more than one element).

Contrary to the definition of “display device” intended by Applicants, the Examiner takes the view that a “display device” is more than just a screen and includes all of the parts that are needed in order to display an image (see page 13 of the Action). Applicants submit that if the “display device consists of all of the parts that are needed in order to display an image”, then computer 16 of Elrod also must be part of the “display device” in addition to subsystems 12 and 14. Applicants submit that such an interpretation of Elrod would be illogical and that the proper interpretation of Elrod is that it discloses a display screen with separate subsystems 12 and 14 and a computer 16. This is not the claimed invention. In order to clarify the claimed invention by avoiding the disagreement over the definition of the term “display device”, the claims have been amended to clearly recite a device onto which an image is projected.

Claims 3 and 6 were rejected under 35 U.S.C § 103(a) as being unpatentable over Elrod in view of U.S. Patent No. 6,414,673 to Wood as explained in the paragraphs spanning pages 7-8 of the Action. Claims 8 and 12 were rejected under 35 U.S.C § 103(a) as being unpatentable over Elrod in view of U.S. Patent No. 5,790,114 to Geaghan et al. (hereinafter referred to as “Geaghan”) for the reasons set forth in the paragraphs spanning pages 8-9 of the Action. Claims 9, 11, 14 and 16 respectively were rejected under 35 U.S.C § 103(a) as being unpatentable over Elrod in view of U.S. Patent No. 4,538,993 to Krumholz as explained at the bottom of page 9 of the Action, U.S. Patent No. 5,689,562 to Hassan et al. (hereinafter referred to as “Hassan”) as set forth at the top of page 10 of

the Action, U.S. Patent No. 5,528,235 to Lin et al. (hereinafter referred to as “Lin”) for the reasons given in the paragraph at the top of page 11 of the Action, and U.S. Patent No. 5,854,621 to Junod et al. (hereinafter referred to as “Junod”) as explained in the paragraph spanning pages 11-12 of the Action, respectively. Finally, claim 13 was rejected under 35 U.S.C § 103(a) as being unpatentable over Elrod as explained in the paragraph at the bottom of page 10 of the Action; and claim 20 was rejected under 35 U.S.C. §103(a) as being unpatentable over Elrod in view of Wood and Junod as explained in the paragraph spanning pages 12-13 of the Action. These rejections are respectfully traversed.

In that Elrod **teaches against** providing a device onto which an image is projected with its own receiver to receive control signals from a remote control device, it is respectfully submitted that one of ordinary skill in the art would not have considered modifying Elrod against its own teachings. Accordingly, Elrod, alone, cannot render Applicants’ invention unpatentable.

The secondary references are applied for specific features set forth in the depending claims. Wood is directed to a transmitter pen location system. Wood is not concerned with an interactive display system with a device onto which an image is projected, at least one remote signaling device and computing means where the a receiver portion of the device onto which an image is projected receives control signals from a remote control device and transmits those signals to the computing means in order to control an image on the display device. Accordingly, there is no motivation to modify either the system taught by Elrod or the system taught by Wood to achieve Applicants’ invention. Even if one of ordinary skill in the art would combine the large area electronic

writing system taught by Elrod with the transmitter pen location system taught by Wood, Applicants' invention would not result because neither patent document discloses or suggest a device onto which an image is projected having a receiver portion and being a communications hub of the display system.

Geaghan was applied for its teachings in Column 7, line 15 directed to the priority to pen contact over finger contact. Consequently, there is no motivation to modify the large area electronic writing system of Elrod to have a display device that receives control signal and transmits the received controls signals to a computing device as set forth in independent claims 1, 15 and 18 of the present invention.

Krumholz was applied for its teaching of an interrupt row that enables a teacher to cut off reception of a particular student computer outputs. This is not concerned with an interactive display system where the display device receives control signal and transmits those control signals to a computing means to control an image on the display device. Accordingly, Krumholz cannot cure the defects of Elrod.

Hassan, Lin and Junod are all directed to inventions that are different from Applicants' claimed invention. None of these references disclose teach or even suggest, an interactive display system with a display device that receives control signal from a remote control device and transmits those signals to a computing means to control an image on the display device. Accordingly, these secondary references cannot provide the missing motivation to modify Elrod as they are directed to technological different systems.

In view of the foregoing amendments and the comments distinguishing the claimed invention from the prior art of record, it is believed that claims 1-20 are allowable over the prior art of record and Applicants request withdrawal of the above rejections. Accordingly, it is respectfully requested that a Notice of Allowance be issued indicating that claims 1-20 are allowed over the prior art of record.

A request for the necessary extension in the period for filing this response is attached. The Commissioner is authorized to charge the 2-month extension fee of \$225.00 (small-entity) to Deposit Account No. 22-0261. If a greater or lesser fee is required, the Commissioner is authorized to charge Deposit Account No. 22-0261 and advise us accordingly.

Should the Examiner believe that a conference would advance the prosecution of this application, the Examiner is encouraged to telephone the undersigned counsel to arrange such a conference.

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Respectfully submitted,



Catherine M. Voorhees  
Registration No. 33,074  
VENABLE LLP

P.O. Box 34385  
Washington, D.C. 20043-9998  
Telephone: (202) 344-4000  
Telefax: (202) 344-8300